REMARKS

Claims 1-24 and 35-48 are pending in the present application. The Examiner has objected to claims 4-11, 16-21, 23, 27-34, 40-45 and 47 as containing allowable subject matter but being dependent upon a rejected base claim. The Examiner also has objected to claims 35-47 as failing to comply with the language requirements of MPEP § 2111.04 and has rejected claims 1-3, 12-15, 22, 24-26, 35-39 and 46.

Claim 12 has been amended to include the limitations of claim 13 and claim 13 has been cancelled. Claims 14-17 and 22-23 have been amended to properly depend from claim 12. Claims 25-34 have been cancelled without prejudice. New claim 48 has been added. Claims 35-47 have been amended herein to conform to the language requirements of MPEP § 2111.04. Applicant believes that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Applicant respectfully responds to this Office Action.

Claim Objections

Claims 35-47 are objected to because each claim recites a limitation "operably" or "adapted to", which is not a positive claim recitation as set forth in MPEP § 2111.04. In response, Applicant has amended claims 35-47 to conform to the language requirements of MPEP § 2111.04. Accordingly, Applicant asserts that the objection of claims 35-47 should be withdrawn.

Claim Rejections – 35 USC § 102(e)

Claim 12 is rejected under 35 USC § 102(e) as being anticipated by Al-Housami (U.S. Patent No. 7,050,814) (hereinafter "Al-Housami"). The rejection is respectfully traversed and reconsideration is requested.

Newly amended claim 12 recites a base transceiver station apparatus comprising a means for receiving data from access terminals and means for setting a rise-over-thermal (ROT) threshold for access terminals, wherein the means for setting the ROT threshold includes means for determining whether an outage of communication has occurred at an access terminal, means for increasing the ROT threshold by a predetermined increment if an outage has not occurred,

and means for decreasing the ROT threshold by a predetermined decrement if an outage has occurred.

Referring to Figure 1 in Al-Housami, the Examiner asserts that Al-Housami discloses a base transceiver apparatus (BTS 18) comprising means for receiving data in a plurality of packets (data traffic) from a plurality of access terminals (mobile users 30, 32) and means for dynamically setting a rise-over-thermal (ROT) threshold (loading threshold L) for access terminals (mobile users 30, 32).

In order to anticipate the claims of an application under 35 U.S.C. §102, a single prior art reference must *identically* disclose each and every element of the claimed invention. Furthermore, for claims in "means plus function" format, such as claim 12, the reference must show identity of function as well as equivalent structure. The Examiner has failed to show identity of function, much less structural equivalent. Therefore, it is respectfully submitted that Al-Housami fails to satisfy these high burdens.

Al-Housami relates to a system and method of resource allocation for the loading level within a telecommunications cell. As will be seen, Al-Housami fails to disclose a means for determining whether an outage of communication has occurred at an access terminal, and consequently fails to disclose means for increasing the ROT threshold by a predetermined increment if an outage has not occurred and means for decreasing the ROT threshold by a predetermined decrement if an outage has occurred.

At col. 3, line 51 to col. 4, line 8, Al-Housami states that each BTS will send intermittently to its controlling RNC, a signal indicating the proportions of high and low data rate users currently active within a cell controlled by that BTS. The RNC can then intermittently allocate to the BTSs it controls an appropriate loading threshold based on a table of predetermined threshold values for specific mixes of services. There is no description in this passage or in Figure 3 of providing means for determining whether an outage of communication has occurred at an access terminal (mobile users 30, 32).

Rather, instead of employing means for determining whether communication has failed at any access terminal to adjust the ROT threshold, Al-Housami looks to the composition of data rate users active within a cell to set a predetermined loading threshold, as shown in Figure 3. This is achieved by using information already available in each BTS. The predetermined

threshold is determined from extensive simulation, based on different possible fractions of high and low data rate services. Using this extensive simulation, it is possible to find the back-off values, *i.e.*, threshold values, for all possible mixes of traffic. See col. 3, lines 26-27. The RNC can maintain a table of threshold values for specific mixes of services and select a threshold from this table based on the proportion of high and low rate data users, as communicated by the BTSs to the RNCs.

Furthermore, because Al-Housami fails to teach or suggest such means for determining whether an outage of communication has occurred at an access terminal, Al-Housami also fails to teach or suggest means which rely upon such means. The failure to show these means alone dictate the withdrawal of the rejection of claim 1 based on anticipation by Al-Housami.

Claim Rejections – 35 USC § 103(a)

Claims 1-3, 13-15, 22, 24-26, 35-39 and 46 are rejected under 35 USC § 103(a) as being unpatentable over Al-Housami in view of Chheda et al. (U.S. Patent No. 7,120,447) (hereinafter "Chheda"). The rejection is respectfully traversed and reconsideration is requested.

Independent claim 1 recites a method of dynamically setting a rise-over-thermal (ROT) threshold in a communication system comprising determining whether an outage of communication has occurred, increasing the ROT threshold by a predetermined increment if the outage has not occurred, and decreasing the ROT threshold by a predetermined decrement if the outage has occurred.

With respect to claims 1 and 13, the Examiner refers Applicant to the discussion for claim 12, as rejected under 35 USC § 102(e), and discussed above. The Examiner notes that Al-Housami does not explicitly teach the step of increasing the ROT threshold by a predetermined increment if the outage has not occurred and the step of decreasing the ROT threshold by a predetermined decrement if the outage has occurred, as recited in the claims. However, the Examiner asserts Al-Housami teaches that the loading threshold is selected based on the proportion of high data rate users, such that the loading level is maintained below a threshold to prevent outage provability. The Examiner further asserts it would be obvious to incorporate the method of determining outage in Al-Housami to estimate whether the loading level is proper or

not such that loading level is increased when outage has not occurred and decreased when outage has occurred.

Applicant agrees with the Examiner's interpretation that Al-Housami teaches that the loading level is maintained below a threshold to prevent user communication outages. However, as explained above, Al-Housami fails to teach or suggest a means for determining whether an outage of communication has occurred at an access terminal. Consequently, Al-Housami fails to teach the step of determining whether an outage of communication has occurred, as required by claim 1.

Referring to Applicant's specification, it is very clear that Applicant's taught method and apparatus require that outage information at access terminals be gathered in real time. See paragraphs [1023-1024] and Figure 2. From this outage information, the ROT threshold is adjusted accordingly, *i.e.*, increased if no outage has occurred or decreased if an outage has occurred. In contrast, Al-Housami does not consider outage information in real time. Instead, Al-Housami adjusts ROT threshold by using a lookup table based on previously conducted simulations. These previously conducted simulations are based on different possible fractions of high and low data rate services. At no time does Al-Housami use outage information to set the ROT threshold, as required by the claimed invention.

The Examiner also cites that the combination of Al-Housami and Chheda render the claimed invention obvious. Chheda relates to a method and apparatus for dynamically controlling selectable voice coder (vocoder) rates to improve forward and reverse link capacity. As explained in Chheda, selectable mode vocoders may be used to increase capacity by degrading voice quality and consequently decreasing associated transmitter output power levels. As average sector power increases in a communications network, call blocking rates increase. Accordingly, by degrading voice quality, network capacity increases and the call blocking rate decreases. See col. 2, lines 28-44. Therefore, a need exists to dynamically adjust vocoder rates based on system load metrics. As is readily apparent, Chheda teaches a method/apparatus for adjusting vocoder rates based on a predetermined ROT threshold, and *not* a method/apparatus for adjusting the ROT threshold. Therefore, combining Chheda with Al-Housami does not teach anything more than using Al-Housami alone.

Thus, even assuming the cited references can properly be combined, the Examiner has failed to establish that the combination teaches or suggests a method of dynamically setting a rise-over-thermal (ROT) threshold in a communication system comprising <u>determining whether an outage of communication has occurred, increasing the ROT threshold by a predetermined increment if the outage has not occurred, and decreasing the ROT threshold by a predetermined decrement if the outage has occurred.</u>

For at least this reason, it is respectfully submitted that independent claim 1 patentably distinguishes over the prior art, and the rejection thereof should be withdrawn. Additionally, independent claims 12, 24 and 35 recite similar limitations to claim 1, and therefore the foregoing arguments can be asserted for these remaining pending independent claims, which patently distinguish over the prior art for at least the reasons provided herein. The pending dependent claims inherit the patentability of their respective independent claims and, as a result, also patentably distinguish over the prior art. Accordingly, reconsideration and withdrawal of the rejection of claims 1-24 and 35-47 under 35 U.S.C. §103 are respectfully requested.

Additionally, new claim 48 has been added, which relates to the processor that sets the rise-over-thermal threshold. Support for this new claim can found throughout Applicant's specification as well as original claim 37. For at least this reason, it is submitted that newly added claim 48 does not contain new subject matter and is allowable over the cited references.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: October 1, 2007

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SDO 77944-1.079916.0111